

Atty. Dkt. No. 085874-0136

CLAIMS:

1. (Canceled)
2. (Canceled)
3. (Previously Presented): A loudspeaker according to claim 34, wherein the vibration exciting system is adapted to apply shear to the panel-form member.
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Previously Presented): A loudspeaker according to claim 34, wherein the vibration exciting system comprises a piezoelectric device attached to the panel-form member to apply a bending couple thereto by introducing alternating tension and compression to the panel-form member in the plane thereof.
8. (Original): A loudspeaker according to claim 7, wherein the piezoelectric device is attached to a face of the panel-form member.
9. (Previously Presented): A loudspeaker according to claim 8, comprising mirror-image piezoelectric devices attached to opposite faces of the panel-form member.
10. (Previously Presented): A loudspeaker according to claim 7, wherein the piezoelectric device has a portion disposed adjacent to the suspension, and a portion disposed remotely from the suspension.
11. (Previously Presented): A loudspeaker according to claim 7, wherein the piezoelectric device is a thin strip-like device fixed to the panel-form member by adhesive.

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12. (Previously Presented): A loudspeaker according to claim 7, wherein the piezoelectric device is a unimorph device.

13. (Original): A loudspeaker according to claim 12, wherein the unimorph device comprises opposed parts arranged such that one part increases in length while the other part contracts.

14. (Previously Presented): A loudspeaker according to claim 34 or claim 7, wherein the panel-form member is transparent.

15. (Previously Presented): A loudspeaker according to claim 14, wherein the piezoelectric device is transparent.

16. (Previously Presented): A loudspeaker according to claim 7, wherein the piezoelectric device is of PZT.

17. (Previously Presented): A loudspeaker according to claim 34, wherein the vibration exciting system comprises an inertial device.

18. (Original): A loudspeaker according to claim 17, wherein the inertial device comprises an inertial mass rigidly fixed to the panel-form member to form a suspension pivot.

19. (Original): A loudspeaker according to claim 17, wherein the inertial device is an inertial vibration exciter.

20. (Original): A loudspeaker according to claim 19, comprising opposed inertial vibration excitors on opposite sides of the panel-form member.

21. (Previously Presented): A loudspeaker according to claim 19, comprising an additional inertial vibration exciter on the panel-form member and coupled to the first said inertial vibration exciter in anti-phase to damp unwanted whole body movement of the panel-form member.

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22. (Canceled)
23. (Canceled)
24. (Canceled)
25. (Canceled)
26. (Canceled)
27. (Canceled)
28. (Canceled)
29. (Canceled)
30. (Canceled)
31. (Canceled)
32. (Canceled)
33. (Canceled)
34. (currently amended): A loudspeaker comprising:
a panel-form member mounted on a suspension; and
a vibration exciting system mounted on the panel-form member;
the vibration-exciter vibration exciting system being adapted to apply bending wave
energy to the panel-form member and cause resonance, thereby producing an acoustic output;
wherein the suspension acts as a pivot, thereby supporting the panel-form member in a
simple fashion and causing nodal lines corresponding to the resonance of the panel-form
member to move towards an edge of the member as compared to a generally corresponding
but resiliently or freely edge-suspended panel-form member;
the vibration-exciter vibration exciting system being positioned so as to bridge across several
of said nodal lines.
35. (Previously Presented): A loudspeaker according to claim 34, wherein said
suspension comprises a high shear stiffness material.
36. (Previously Presented): A loudspeaker according to claim 35, wherein said
suspension comprises high shear stiffness foam plastics material.

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37. (currently amended): A loudspeaker according to claim 34, claim 35 or claim 36, wherein the suspension acts as a pivot only in the region local to the ~~exciter~~ vibration exciting system.

38. (currently amended): A loudspeaker according to claim 37, wherein the suspension in regions other than the region local to the ~~exciter~~ vibration exciting system is resilient.

39. (currently amended): A loudspeaker according to claim 38, wherein the suspension in regions other than the region local to the ~~exciter~~ vibration exciting system is soft foam material.